CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims

Claim 1 (canceled)

Claim 2 (currently amended): ~~The chemical screening apparatus of claim 1~~ The semi-custom array for chemical screening of claim 35 wherein the strips ~~has~~ have a length taken along the longitudinal axis of at least ten times the maximum cross-sectional dimension of the strips taken across the longitudinal axis.

Claims 3 – 4 (canceled)

Claim 5 (currently amended): ~~The chemical screening apparatus of claim 1~~ The semi-custom array for chemical screening of claim 35 wherein the non-reactive strips ~~is a~~ are glass fibers.

Claim 6 (currently amended): ~~The chemical screening apparatus of claim 1~~ The semi-custom array for chemical screening of claim 35 wherein the support frame holds the strips transversely spaced in parallel relationship.

Claim 7 (currently amended): ~~The chemical screening apparatus of claim 1~~ The semi-custom array for chemical screening of claim 35 wherein the support frame holds the strips transversely spaced along two perpendicular axes.

Claim 8 (canceled)

Claim 9 (currently amended): ~~The chemical screening apparatus of claim 1~~ The semi-custom array for chemical screening of claim 35 wherein the strips include recessed portions receiving the chemically reactive substances.

Claim 10 (currently amended): ~~The chemical screening apparatus of claim 1~~ The semi-custom array for chemical screening of claim 35 wherein the strips include a marker allowing the strips to be distinguished.

Claim 11 (currently amended): ~~The chemical screening apparatus of claim 1~~ The semi-custom array for chemical screening of claim 10 wherein the marker is selected from the group of printing and fluorescent material.

Claim 12 (currently amended): ~~The chemical screening apparatus of claim 1~~ The semi-custom array for chemical screening of claim 35 wherein the strips include a marker allowing a given end of the strip to be identified.

Claim 13 (currently amended): ~~The chemical screening apparatus of claim 1~~ The semi-custom array for chemical screening of claim 35 wherein the marker is selected from the group of printing and fluorescent material.

Claim 14 (withdrawn): A chemical screening apparatus comprising a strip of a non-reactive substrate extending along a longitudinal axis and supporting, spaced along that longitudinal axis, a linear array of different, oligonucleotides exposed on a surface of the strip.

Claim 15 (withdrawn): The chemical screening apparatus of claim 14 wherein the strip has a length taken along the longitudinal axis of at least ten times the maximum cross-sectional dimension of the strip taken across the longitudinal axis.

Claim 16 (withdrawn): The chemical screening apparatus of claim 14 wherein the non-reactive strip is a glass fiber.

Claim 17 (withdrawn): The chemical screening apparatus of claim 14 wherein the strips include isolating bands of a chemically repellant coating between the chemically reactive substances.

Claim 18 (withdrawn): The chemical screening apparatus of claim 14 wherein the strips include recessed portions receiving the chemically reactive substances.

Claim 19 (withdrawn): The chemical screening apparatus of claim 14 wherein the strips include a marker allowing the strips to be distinguished.

Claim 20 (withdrawn): The chemical screening apparatus of claim 14 wherein the marker is selected from the group of printing and fluorescent material.

Claim 21 (withdrawn): The chemical screening apparatus of claim 14 wherein the strips include a marker allowing a given end of the strip to be identified.

Claim 22 (withdrawn): The chemical screening apparatus of claim 1 wherein the marker is selected from the group of printing and fluorescent material.

Claim 23 (withdrawn): A method of manufacture of strips of a non-reactive substrate extending along a longitudinal axis and supporting, spaced along that longitudinal axis, a linear array of different, chemically reactive substances exposed on a surface of the strip comprising the steps of;

(a) affixing the strips in a frame to be transversely spaced in parallel relationship in a plane to expose at a plane, surface locations for the chemically reactive substances;

(b) immersing the frame in a sequence of component solutions;

(c) light activating the bonding of a substance of the component solution with the strips at a subset of the locations for each component solution; and

(d) releasing the strips from the frame.

Claim 24 (withdrawn): A method of manufacture of strips of a non-reactive substrate extending along a longitudinal axis and supporting, spaced along that longitudinal axis, a linear array of different, chemically reactive substances exposed on a surface of the strip comprising the steps of;

(a) positioning the strip to have different longitudinal portions positioned in adjacent volumes holding different component solutions;

(b) light activating the bonding of a substance of at least one of the component solutions with the strip at a location for at least one of the chemically reactive substances;

(c) repositioning the strip within the volumes of different component solutions; and

(d) repeating steps (b) and (c) to create chemically reactive substances at the locations.

Claim 25 (withdrawn): The method of claim 24 wherein multiple strips are simultaneously positioned within the adjacent volumes to have light activated bonding of the component solution.

Claim 26 (withdrawn): The method of claim 24 wherein the volumes are separated by a multiple of the separation of the locations of the chemically reactive substances.

Claim 27 (withdrawn): The method of claim 26 wherein the strip is formed in a continuous loop to circulate through the volumes.

Claim 28 (withdrawn): A method of manufacture of strips of a non-reactive substrate extending along a longitudinal axis and supporting, spaced along that longitudinal axis, a linear array of different, chemically reactive substances exposed on a surface of the strip comprising the steps of;

(a) positioning a plurality of strips to pass through a volume bracketing a segment of the strips;

(b) fill the volume with component solution bonding onto the segments a portion of the chemically reactive substances;

(c) flush the volume of component solution;

(d) repositioning at least some of the strip within the volumes so that different segments are subtended; and

(e) repeating steps (b) and (c) with different chemical solutions to create the chemically reactive substances at the locations.

Claim 29 (withdrawn): The method of claim 28 wherein the strips are independently repositioned so that each strip may have different chemically reactive substances with respect to the others.

Claim 30 (withdrawn): A method of manufacture of strips of a non-reactive substrate extending along a longitudinal axis and supporting, spaced along that longitudinal axis, a linear array of different, chemically reactive substances exposed on a surface of the strip comprising the steps of;

(a) affixing the strips in a frame to be transversely spaced in parallel relationship in a plane to expose at a plane, surface locations for the chemically reactive substances;

(b) placing a mask material over the plane exposing a selected subset of locations;

(c) immersing the frame in a sequence of component solutions;

(d) repeating steps (b) and (c) for a plurality of masks and component solutions to create the different chemically reactive substances; and

(e) releasing the strips from the frame.

Claim 31 (withdrawn): A method of manufacture of beads of a non-reactive substrate supporting different, chemically reactive substances exposed on a surface of the strip comprising the steps of:

(a) preparing strips of a non-reactive substrate extending along a longitudinal axis and supporting, spaced at locations along that longitudinal axis, a linear array of different, chemically reactive substances exposed on a surface of the strip by repeated exposure of the locations to different chemical materials in a predefined sequence; and

(b) cutting the strip between the locations to produce the beads.

Claim 32 (withdrawn): A method of screening chemical materials comprising the steps of:

(a) preparing at least two different strips of a non-reactive energy conductive substrates extending along a longitudinal axis and supporting, spaced along that longitudinal axis, a linear array of different, chemically reactive substances exposed on a surface of the strip;

(b) arranging the strips to cross at a read-out site;

(c) applying energy to at least one of the strips to promote an energetic interaction with a chemically reactive substance at the read-out site; and

(d) detecting energy at least one of the strip to detect the energetic interaction at the read out site.

Claim 33 (withdrawn): A method of promoting localized chemical reactions comprising the steps of:

(a) preparing least two different strips of a non-reactive energy conductive substrates extending along a longitudinal axis and supporting, spaced along that longitudinal axis, a linear array of different, chemically reactive substances exposed on a surface of the strip;

(b) arranging the strips to cross at a promotion site;

(c) applying energy to at least one of the strips to promote an energetic interaction with a chemically reactive substance at the promotion site causing the localized chemical reaction.

Claim 34 (canceled)

Claim 35 (previously presented): A semi-custom array for chemical screening comprising:

(a) at least two different strips of a non-reactive substrate extending along a longitudinal axis and supporting, spaced along that longitudinal axis, a linear array of different, chemically reactive substances exposed on a surface of the strip; and

(b) a support frame for receiving and holding the strips for mutual exposure to a material to be screened wherein the strips include isolating bands of a chemically repellant coating between the chemically reactive substances.

Claims 36 – 40 (canceled)

Claim 41 (previously presented): A chemical screening kit comprising:

(a) a library of strips of a non-reactive substrate extending along a longitudinal axis, each strip supporting, spaced along that longitudinal axis, different linear arrays of chemically reactive substances exposed on a surface of the strip; and

(b) a support frame for receiving and holding different combinations of a subset of the library of strips for mutual exposure to a material to be screened;

whereby a semi-custom array of reactive substances may be created.

Claim 42 (canceled)

Claim 43 (new): The chemical screening kit of claim 41 wherein the strips have a length taken along the longitudinal axis of at least ten times the maximum cross-sectional dimension of the strip taken across the longitudinal axis.

Claim 44 (new): The chemical screening kit of claim 41 wherein the non-reactive strips are glass fibers.

Claim 45 (new): The chemical screening kit of claim 41 wherein the support frame holds the strips transversely spaced in parallel relationship.

Claim 46 (new): The chemical screening kit of claim 41 wherein the support frame holds the strips transversely spaced along two perpendicular axes.

Claim 47 (new): The chemical screening kit of claim 41 wherein the strips include isolating bands of a chemically repellant coating between the chemically reactive substances.

Claim 48 (new): The chemical screening kit of claim 41 wherein the strips include recessed portions receiving the chemically reactive substances.

Claim 49 (new): The chemical screening kit of claim 41 wherein the strips include a marker allowing the strips to be distinguished.

Claim 50 (new): The chemical screening kit of claim 41 wherein the marker is selected from the group of printing and fluorescent material.

Claim 51 (new): The chemical screening kit of claim 41 wherein the strips include a marker allowing a given end of the strip to be identified.

Claim 52 (new): The chemical screening kit of claim 41 wherein the marker is selected from the group of printing and fluorescent material.